

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

**Claim 1. (currently amended)** A method for the geometric measurement of a material strip (2) ~~[[,]]~~ comprising:

~~[[ -]]~~ ~~with which~~ ~~[[,]]~~ ~~by means of a first measuring device~~ ~~[[,]]~~ determining the strip thickness is determined of the material strip at at least one measurement point (12) ~~arranged~~ in the material strip (2) by means of a first measuring device,

~~[[ -]]~~ ~~with which~~ ~~[[,]]~~ ~~by means of a second measuring device~~ ~~[[,]]~~ determining the shape and spatial location of the material strip (2) is determined relative to a reference position by means of a second measuring device, and

~~[[ -]]~~ ~~with which~~ carrying out a correction of the measured values of the first measuring device ~~is~~

~~carried out~~ by the measured values of the second measuring device,

wherein on the surface of the material strip (2), with the second measuring device being an optical projection device (13), at least one line is projected, running essentially perpendicular to the longitudinal direction of the material strip, wherein the projected line is detected by means of a camera (14), and wherein from a minimum of one line recorded by the camera (14), the shape and spatial location of the material strip (2) along the projected line is determined.

**Claim 2. (currently amended)** The method according to Claim 1,

[[ - ]] ~~with which~~ wherein the material strip (2) is penetrated at ~~the~~ a minimum of one measurement point (12) by ~~[[the]]~~ radiation (10, 11) from at least one radiation source (6, 7) and

[[ - ]] ~~with which the~~ wherein a reduction in the

intensity of the radiation (10, 11) caused by the material strip (2) is determined by at least one detector (8, 9).

**Claim 3. (currently amended)** The method according to Claim 2,

[[ - ]] ~~with which~~ wherein the measured values are recorded at a plurality of measurement points (12), whereby the measurement points are arranged at a distance transverse to the longitudinal direction ~~specified by~~ of the material strip (2),

[[ - ]] ~~with which~~ [[ , ]] wherein at predetermined intervals in the longitudinal direction, a series of measurements essentially comprising all the measurement points (12) ~~is~~ are recorded, and

[[ - ]] ~~with which~~ wherein the thickness of the material strip (2) is calculated for each measurement point (12) acquired.

**Claim 4. (currently amended)** The method according to  
Claim 2,

[[ -]] ~~with which~~ wherein each measurement point (12) is  
acquired ~~in each case~~ by at least two detectors  
(8, 9), which ~~in each case~~ detect radiation (10,  
11) at different spatial angles.

**Claim 5. (canceled)**

**Claim 6. (currently amended)** The method according to  
Claim [[5]] 1, ~~with which the~~ wherein a minimum of one line  
created by the projection device (13) is aligned in such a way  
that [[it]] said minimum of one line created by the projection  
device runs through ~~the~~ a minimum of one measurement point (12)  
of the first measuring device.

**Claim 7. (currently amended)** The method according to  
Claim [[5]] 1,

[[ -]] ~~with which~~ wherein a grid of lines is  
projected, located at a distance from one

another in the longitudinal direction of the material strip (2),

[[ -]] ~~with which~~ wherein the ~~line~~ grid of lines is recorded with ~~the aid of~~ a camera (20), and

[[ -]] ~~with which~~ [[ ,]] on [[ the]] a basis of [[ the]] an evaluation of the shape of the ~~line~~ grid of lines, the shape and spatial location of the material strip (2) is determined at least partially in the area of the material strip (2) comprised by the ~~line~~ grid of lines.

**Claim 8. (currently amended)** The method according to Claim 1, ~~with which~~ wherein the longitudinal contour and transverse contour of the material strip (2) are calculated from the measured values of the second measuring device.

**Claim 9. (currently amended)** The method according to Claim 8, ~~with which~~ wherein the position of ~~the~~ a minimum of one measuring point (12) inside the material strip (2) is determined by the measured spatial location and shape of the

material strip (2) relative to the reference position.

**Claim 10. (currently amended)** The method according to  
Claim [[5]] 1,

[[ - ]] ~~with which~~ wherein the projected line is detected  
in [[the]] a pixel matrix of the camera (14),

[[ - ]] ~~with which~~ wherein the projected line is  
~~subtracted~~ extracted from the pixel matrix and  
[[the]] corresponding pixel co-ordinates are  
determined,

[[ - ]] ~~with which~~ wherein the pixel co-ordinates are  
transformed into object co-ordinates, and

[[ - ]] ~~with which~~ wherein the object co-ordinates are  
interpolated onto equidistant support points and  
referenced relative to [[a]] the reference  
position.

**Claim 11. (currently amended)** The method according to  
Claim 10,

[[ - ]] ~~with which~~ [[ , ]] wherein for the detection of the  
projected line in the pixel matrix, an upper range  
and a lower range is determined for each pixel,  
seen in the Y-direction [[ ( ]] pixel co-ordinates  
[[ ) ]],

[[ - ]] ~~with which the~~ wherein a mean grey value is  
determined for ~~both ranges~~ the upper range  
and the lower range,

[[ - ]] ~~with which~~ wherein the greater of the [[ two ]] mean  
grey values of the upper range and the lower range  
is determined, and

[[ - ]] ~~with which~~ [[ , ]] when the grey value of [[ the ]] a  
pixel under consideration ~~lies~~ is higher by a  
predetermined amount above the greater mean grey  
value, the pixel under consideration is selected.

**Claim 12. (currently amended)** The method according to  
Claim 11,

[[ -]] ~~with which~~[[ ,]] wherein after the extraction of the projected line from the pixel matrix, small gaps between grouped and selected pixels are filled, and

[[ -]] ~~with which~~ wherein a weighting process takes place in such a way that ~~referred to~~ each pixel in a weighing image ~~is the~~ has a number of selected pixels associated with ~~[[ it]]~~ said each pixel, as a grey value.

**Claim 13. (currently amended)** The method according to Claim 12,

[[ -]] ~~with which~~[[ ,]] wherein for the ~~extraction~~ extracting of the projected line from the weighting image ~~on the one hand~~ and the original image ~~on the other~~, for each ~~[[ X-]]~~ X-pixel co-ordinate ~~(pixel co-ordinates)~~ a vector is determined which describes a point on the projected line ~~(pixel co-ordinates)~~.



**Claim 14. (currently amended)** The method according to Claim 1,

[[ - ]] ~~with which~~ wherein the spatial positions of the edges of the material strip are measured, and

[[ - ]] ~~with which~~ wherein the corrected actual width of the material strip (2) is calculated from the spatial position of the edges of the material strip (2) and the determined transverse contour of the material strip (2).

**Claim 15. (currently amended)** A device for the geometric measurement of a material strip (2) ~~[[ , ]] in particular for carrying out the method according to one of Claim 1 [[ , ]]~~ comprising:

[[ - ]] ~~with~~ a first measuring device for the determination of the strip thickness in at least one measurement point (12) arranged in the material strip (2), ~~and~~

[[ - ]] ~~with~~ a first evaluation means for the evaluation

of the measured values recorded by the first measuring device, ~~wherein~~

[[ - ]] a second measuring device ~~is provided~~ for the determination of the shape and spatial location of the material strip (2) relative to a reference position,

[[ - ]] ~~that~~ a second evaluation means ~~are provided~~ for the evaluation of the measured values recorded by the second measuring device, and

[[ - ]] ~~that~~ a correction means ~~are provided~~ for correcting the measured values of the first measuring device by the measured values of the second measuring device, wherein the second measuring device comprises a projection device (13), the projection device (13) projects a line onto the surface of the material strip (2) and wherein the second measuring means comprises a camera (14) for the acquisition of the projected line in a pixel matrix.

**Claim 16. (currently amended)** The device according to  
Claim 15, wherein

[[ -]] the first measuring device ~~exhibits~~ comprises at least  
one radiation source (6, 7) and at least one detector  
(8, 9),

[[ -]] whereby ~~the~~ a radiation section, detected by the  
minimum of one detector (8, 9), of the radiation  
generated by the radiation source (6, 7) defines a  
measurement point (12) arranged in the material strip  
(2).

**Claim 17. (currently amended)** The device according to  
Claim 16, wherein

[[ -]] the first measuring device ~~exhibits~~ comprises at  
least two radiation sources (10, 11), which are  
arranged transverse to the longitudinal direction  
of the material strip and at a distance from one  
another,

[[ -]] ~~that~~ wherein the first measuring device ~~exhibits~~

comprises a plurality of detectors (8, 9), which are arranged transverse to the longitudinal direction of the material strip and at a distance from the radiation sources (10, 11),

[[ - ]] ~~that~~ wherein the material strip (2) is arranged between the radiation sources (10, 11) and the detectors (8, 9),

[[ - ]] ~~that~~ wherein the first evaluation means evaluate the measured values recorded by the detectors (8, 9),

[[ - ]] ~~that in each case~~ wherein two detectors (8, 9) are aligned on two different radiation sources (10, 11), and form a pair of detectors (8, 9),

[[ - ]] ~~that the~~ wherein axes formed ~~in each case~~ by the detectors (8, 9) ~~of one pair~~ and the radiation sources (10, 11) intersect essentially in the area of the material strip (2) and a measurement point is therefore specified, and

[[ - ]] ~~that~~ wherein the first evaluation means evaluate from the measured values the thickness of the

material strip (2) in the measurement points (12).

**Claim 18. (canceled)**

**Claim 19. (currently amended)** The device according to Claim ~~[[18]]~~ 15, wherein ~~[[the]]~~ a light beam generated by the projection device (13) runs through ~~[[the]]~~ a minimum of one measuring point (12) of the first measuring device.

**Claim 20. (currently amended)** The device according to Claim ~~[[18]]~~, wherein

~~[[ - ]]~~ the projection device projects a grid of lines onto the surface of the material strip (2), and  
~~[[ - ]]~~ ~~that~~ wherein the second measuring device ~~exhibits~~ comprises a camera (20) for the acquisition of the projected ~~line~~ grid of lines.

**Claim 21. (currently amended)** The device according to Claim 20, wherein one of the lines of the ~~line~~ grid of lines runs through the minimum of one measurement point (12) of the first measuring device.

**Claim 22. (new)** The device according to Claim 15, wherein the projection device (13) is a laser source.